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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR  | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/653,888      | 09/01/2000  | Thomas Anthony Cofino | YOR920000607US1     | 5996             |

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EXAMINER

RHODE JR, ROBERT E

ART UNIT PAPER NUMBER

3625

DATE MAILED: 12/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/653,888

Applicant(s)

COFINO ET AL.

Examiner

Rob Rhode

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 October 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 3 - 9, 11 - 20 and 22 - 36 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1, 3 - 9, 11 - 20 and 22 - 36 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Response to Amendment*

Applicant's amendment of 10-11-05 amended claims 1 and 23 and canceled claims 2, 10 and 21 as well as traversed rejections of Claims 1 - 36.

Currently, claims 1, 3 - 9, 11 - 20 and 22 - 36 are pending.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1, 4 - 7, 9 - 12, 14 - 19, 20 - 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wenig (US 6,286,030 B1) in view of Parker v. Flook, 198 USPQ 193 (1978) and Yaginuma.**

Regarding claim 1 (Previously Presented) and related claims 23 (Previously Presented) and 30 (Previously Presented), Wenig teaches a method of graphically representing clickstream data of a shopping session on a network comprising: extracting one or more shopping sessions from one or more Web server logs of one or more Web server systems of one or more online stores (see at least Abstract and Col 4,

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lines 27 – 40 and Figures 1 - 4); deriving one or more micro-conversions from the one or more shopping sessions, the micro-conversion comprising a shopper's conversion from one shopping step to another (see at least Col 5, lines 3 – 13). Wenig further discloses graphically representing clickstream data from one or more micro-conversions in a first visualization (see at least Col 1, lines 47 – 50, Col 5, lines 14 – 15, Col 7, lines 44 – 67, and Figures 6 and 7). At this point, it is worth noting that micro-conversion as defined in the claims as the conversion from one shopping step to the next (i.e. clicking on the next button), which are captured and stored as data in Web server logs (i.e. database). This stored data from these shopping sessions consist of recorded data as disclosed, claimed and argued are in the form of non-functional descriptive material (MPEP 2106). Moreover, non-functional descriptive material is given little patentable weight. In that regard, the shopping steps as taught by Wenig are recorded for each session and thereby is recorded/stored data, which is considered to be non-functional descriptive material. This stored data in online methods and systems with specifics such as a kind/type of recorded data (i.e. shopping steps) are given little patentable weight. The word(s) or phrase(s) are given little patentable weight because the claim language limitation is considered to be non-functional descriptive material, which does not patentably distinguish the applicant's invention from Wenig. Thereby, the non-fictional descriptive material is directed only to the content of the data (. i.e. shopping steps - which is stored data) and does not affect either the structure or method/process of Wenig, which leaves the method and system unchanged. Moreover in Wenig, the first visualization is disclosed as being a screen shot of a particular web page (Col 9, lines

23 - 24). Like Applicant's recited first visualization, Wenig's first visualization serves to depict a point of a problem at which at least one shopping session ends prior to purchase. Again, like Applicant's recited first visualization, Wenig teaches that such point at which at least one shopping session ends serves to graphically represent the trouble spot to a user who can then proceed to produce any necessary fixes so that a user is better able to a target destination or action desired by the user/webmaster to improve the shopping for future shoppers (see at least Col 1, lines 26 – 35 and line 67, Col 2, lines 1 – 2). While Wenig does not disclose that the first visualization comprises the specific visualization recited by Applicant (i.e. "a first visualization comprising at least three axes...session ends"), Wenig does, nonetheless, teach that all of the necessary clickstream data used for graphically representing Applicant's recited first visualization is resolved prior to the step of actually visually representing such data. All that remains is the manner in which one of ordinary skill in the art elects to present such clickstream data in a manner manifestly discernable and more easily understood by the user.

It would have been obvious to one of ordinary skill in the art to have presented such clickstream data as a first visualization comprising at least three axes representing shopping steps and one or more lines that each correspond to at least one said shopping session, at least one of the one or more lines intersecting less than all of the axes and terminating at the axis wherein the at least one said shopping session ends. This is because, as stated by the Court in Parker v. Flook, 198 USPQ 193 (1978):

"A competent draftsman could attach some form of post-solution activity to almost any mathematical formula; the Pythagorean theorem would not have been patentable, or partially patentable, because a patent application contained a final step indicating that the formula, when solved, could be usefully applied to existing surveying techniques".

The Court in Parker makes clear that once the object of the method has been achieved, the act of graphically depicting the result does not serve to otherwise "transform" such result in any non-obvious way. In this case, the object of the method is achieved as disclosed by Wenig--with the exception of the specific form of the graphical depiction recited by Applicant. However, this specific form of graphical depiction does not result in any further "transformation" of the result itself, but merely serves to differently represent, in manifest form, the result of the same completed method.

To that end, the Examiner notes that Applicant's specific form of graphical representation is a well-known drafting technique used to provide a graphical representation of complex data. For example, Yaginuma teaches that complex data may be graphically represented in what is described as a "parallel coordinate system" (see at least Abstract, Col 2, lines 13 –15 and lines 30 – 37, Col 6, lines 29 - 34 and Figures 2 and 6). Such system comprises at least three axes and one or more lines that each correspond to complex data retrieved and plotted in graphical "parallel coordinate system". Accordingly, the combined method of Wenig/ Parker /Yaginuma would have resulted in a non-obvious first visual representation manifest in the form of a

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parallel coordinate system with an indication of the termination of the shopping session being represented by a line intersecting less than all of the axes of the coordinate system as taught by Yaginuma--rather than by the screen shot of the terminal web page already taught by Wenig.

Regarding claim 4 (Previously Presented), Wenig teaches a method, where the clickstream data is a collection of micro-conversions of one or more shoppers for at least one of products and services sold in at least one online store (see at least Abstract, Col 5, lines 3 – 13).

Regarding claim 20 (Previously Presented), Wenig teaches a method further comprising modifying at least one of Web design, navigation paths of the online store, advertisement banners, product layouts, service layouts, marketing and merchandising based on at least one of the visualizations (Col 2, lines 1 – 12).

Regarding claim 29 (Previously Presented) and related claim 36 (Previously Presented), Wenig teaches a method wherein the graphical representation is provided to the user over a network (Col 1, lines 42 – 47).

Regarding claims 5 – 7, 9 – 12, 14 – 19, 21 - 22, 24 – 28 and 31 – 36, Yaginuma is an example, in the same area of providing a visualization of complex data to enhance understanding as well as a visualization in graphic form including a parallel coordinate

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system (see at least Abstract, Col 1, lines 16 – 43, Col 5, lines 6 – 67, Col 6, lines 1 – 8 and 30 – 34, Col 7, lines 19 – 29 and Figures 1 – 19).

**Claims 3, 8 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Wenig (US 6,286,030 B1), Parker v. Flook, 198 USPQ 193 (1978) and Yaginuma (US 6,477,538 B2) as applied to claims 1, 7, 12 above, and further in view of Hunt (US 6,223,215 B1).**

The combination of Wenig, Parker and Yaginuma substantially disclose and teach the applicant's invention.

The combination of Wenig, Parker and Yaginuma disclose product impressions that can be viewed via a hyperlink such as a basket placement of product and purchase as well as other shopping events, the combination does not specifically disclose and teach viewing via hyperlink a basket placement as well as referred web sites.

On the other hand and regarding claim 3 (Previously Presented), Hunt teaches a method, where the shopping steps include a product impression that is the a view of a hyperlink to a Web page presenting one of a product or and service, a clickthrough that is a click on the hyperlink and view of the Web page of the product or service, a basket placement that is the a placement of the one of the product and service item in the a shopping basket, and a purchase that is the a purchase of the one of the product and



service (see at least Col 1, lines 49 – 52, Col 2, lines 18 – 31, Col 8, line 52 and Figure 2).

Regarding claim 8 (Previously Presented), Hunt teaches a method where the sequential events include any one or more at least one of the following: one or more steps of shopping in one or more stores, one or more product development steps, and one or more service development steps (see at least Col 2, lines 18 – 21).

Regarding claim 13 (Previously Presented), Hunt teaches a method, where the categorizer includes one or more at least one of the following: the referrer Web sites of sessions, internet service providers of sessions, lengths of sessions, methods used to find product information by sessions, methods used to find service information by sessions, products viewed, services viewed items placed in a shopping cart, items purchased by sessions, time points of sessions, the geographic regions where sessions originated, the ages, sex, education, and income of owners of session originators, sales history of the owners of sessions, and Web page patterns accessed by one of sessions the and owners of sessions (see at least Col 2, lines 8 - 20, Col 5, lines 47 – 65 and Figure 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the combination of Wenig, Parker and Yaginuam with the method of Hunt in order to more fully understand both the origin of the shopper and to ensure that

the online site provides more tailored advertising for example to individual shoppers.

The combination the Wenig, Parker and Yaginuma disclose the claim limitations for the above claims with the exception of claims 3, 8 and 13. In turn, Hunt discloses the view of a web page and a click through as a shopper shops at a site as well as referred web sites (see at least Abstract, Col 2, lines 8 – 20, Col 5, lines 47 – 65 and Figure 3).

Therefore, one of ordinary skill in the art would have been motivated to extend the combination of Wenig, Parker and Yaginuma with a method and system for viewing of a web page and a click through as an shopper shops at a site as well as referred web sites.

### ***Response to Arguments***

Applicant's arguments filed 11-05-05 have been fully considered but they are not persuasive.

Applicant argues that Wenig as well as Yaginuum do not disclose or teach “to display a specific set of data in a manner that is particularly cognizable for the human observer” and that the references do not disclose and teach “culling an analogous set of data from the searched database and displaying a line dropping out”.

First, Wenig discloses and teaches one of ordinary skill the need to display a specific set of data in a manner, which is easily recognizable for user. For example, Wenig discloses request which are stored as hit(s)/data points for an online shopper converting from one point to another (i.e. clickstream) at a site. Also and noted above,

the information, in manifest form, is not mathematically different for the purposes of establishing values than the information prior to plotting. The object of the method has been achieved prior to these steps and the values are not further and otherwise "transformed" and thereby forming a non-obvious modification of the visualization already taught by Wenig. In that regard and more importantly, Wenig teaches a method and system for solving the problem of analysis of multiple users navigation through a website and as importantly using the analysis to determine how to improve a website to achieve a particular result (Col 1, lines 26 – 67, Col 2, lines 1 – 2 and Figure 1).

Moreover, Wenig discloses and would suggest to one of ordinary skill the requirement to extract from a database/web server log and visually display these shopping sessions for an analyst/user in a visualization - in order to more effectively understand and improve a customer's navigation through the site to achieve a particular result - such as purchase (Abstract, Col 2, lines 1 – 2, Col 5, lines 3 - 14 and Figures 1 – 5).

Furthermore, the web site of Wenig as with an off line store too is motivated to investigate and seek methods to improve the shopping experience of customer's - to increase the probability of a sale and to understand more fully the reasons for the user "dropping out" before effecting a purchase. Thereby, Wenig would fairly suggest and teach investigating the reasons for a customer not purchasing a product and to improve the site for the customer(s) navigation and ease of use. In that regard, Wenig would have fairly suggested to one of ordinary skill a method and system that provides an method to understand the extensive captured data for a analyst/user with visualization of each customer's shopping session – in order to improve the data such as web page

for the user and thereby decrease the probability of the shopper terminating/”dropping out” before effecting a purchase. Therefore, Wenig and as is well known in the art teaches that it is important to gain information on a site visitors navigation through a site and what products were viewed as well as active steps recorded (i.e. “micro-conversion”) for each shopping session(s) - such as ordering (i.e. “purchase”) [Abstract, Col 1, lines 27 – 50 and Col 2, line 5] and as importantly to improve.

Yaginuma in turn discloses and teaches one of ordinary skill a method and system for datamining of complex data and displaying in a parallel coordinate system for ease of understanding by a user (Abstract, Col 2, lines 13 – 15, 30 – 37, Col 5, lines 12 – 24 and Figures 1 – 6). While the Applicant further argues that Yaginuma teaches a “away” from a “line dropping out”, Yaginuma was provided as an example of graphically portraying the data in a “parallel coordinate system” – since Wenig already teaches the principal of understanding and depicting visually where a shopper terminates/ “drops out” – as well as to improving. Moreover, Yaginuma teaches “a way” and not the only “way” for datamining and displaying graphically complex captured and stored data data/information. For example and well known to one of ordinary skill in the art is that datamining and displaying of data in a graphically format such as parallel coordinate system is almost limitless and thereby not limited to the examples depicted in Yaginuma – and they are just that - examples of using the method and system to display complex data in more understandable graph. Wenig when combined with Yaginuma would fairly suggest and teach one of ordinary skill of displaying data in parallel coordinate, which depicts “ a line dropping out”.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Rob Rhode** whose telephone number is **571.272.6761**. The examiner can normally be reached Monday thru Friday 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Wynn Coggins** can be reached on **571.272.7159**.

Any response to this action should be mailed to:

***Commissioner for Patents***

***P.O. Box 1450***

**Alexandria, Va. 22313-1450**

or faxed to:

**571.273.8300** [Official communications; including  
After Final communications labeled  
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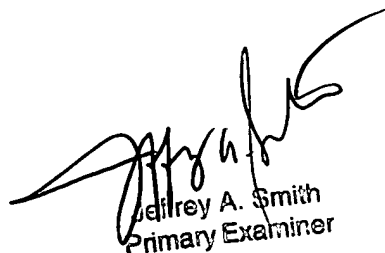
For general questions the receptionist can be reached at

571.272.3600

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Jeffrey A. Smith  
Primary Examiner